DOCKET FILE COPY ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
The 4.9 GHz Band Transferred from Federal Government Use	)	WT Docket No. 00-32

To: The Commission

REPLY COMMENTS OF GLOBAL FRONTIERS, INC.

Sidney White Rhyne
3250 Arcadia Place, N.W.
Washington, D.C. 20015-2330
202/244-6248 Fax 244-4279
swrhyne@abanet.org

Counsel for Global Frontiers, Inc.

May 17, 2000

TABLE OF CONTENTS

Page

TABLE OF AUTHORITIES AND CITATIONS

Pages

Statutes

Regulations

Pages

FCC Notices, Reports and Orders

Speeches by FCC Bureau Chiefs

Committee Reports

Pages

Petitions

Comments Filed in This Proceeding

SUMMARY

Global Frontiers, Inc. ("Global"), opposes allocation of spectrum in the 4940-4990 MHz frequency band to use exclusively by public safety agencies. Such allocation would exacerbate the fragmentation that already exists in public safety spectrum, would make interoperability more difficult because the band is far removed from present allocations to public safety, would fail to help meet the principal need of public safety agencies for enhanced voice communications, and would impair the availability of the band for introducing new technologies to serve the public. The 1996 PSWAC Report does not constrain the Commission from weighing all factors necessary to make its public interest determination.

The public, small businesses and rural telephone companies would all be better served by licensing the 4940-4990 MHz band in geographic services area that are smaller than Department of Commerce Economic Areas, or "EAs."

The Commission should analyze whether the bidding credits it has proposed have been effective in bringing small businesses into the distribution of new spectrum in a significant way, and if not should increase those credits in this proceeding.

Finally, the Commission should reject the proposal for "zoning" portions of the 4940-4990 spectrum for use by only fixed or only mobile services, regardless of the geographic area, because it would diminish the spectrum available to fixed services for the broadband transmissions required in advanced telecommunications.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
The 4.9 GHz Band Transferred from Federal Government Use	)	WT Docket No. 00-32
	)	

To: The Commission

REPLY COMMENTS OF GLOBAL FRONTIERS, INC.

Global Frontiers, Inc. ("Global"), pursuant to 47 CFR §1.415(c) and ¶109 of the Commission's Notice of Proposed Rulemaking in this proceeding (the "NPR"), submits these Reply Comments.

Introduction

Global is an Internet Service Provider located in Portland, Oregon, which provides comprehensive online services to a national and international customer base. It has filed Comments in this proceeding. Earlier, it filed a Petition for Rule Making that was cited extensively in the NPR and many of the suggestions of which were incorporated in the proposals of the NPR. Global submits these Reply Comments in order to address several suggestions made in other Comments.

I. The Commission Should Preserve the 4940-4990 Band for New Advanced Technologies

A. Introduction of Advanced Technologies Is a Commission Priority

As made clear in Global's Petition, its interest in the 4940-4990 MHz frequency band is to introduce in that band a new technology that will make available advanced telecommunications services. Petition, p.3. Provision of such services to the public has been recognized by the Commission as a top priority. See, e.g., *Federal-State Joint Conference on Advanced Telecommunications Services*, FCC 99-293, CC Docket No. 99-294, 14 FCC Rcd 17622, ¶¶1-2 (1999), and Global's Comments at p.16.

There are three different places in the portion of the Communications Act that deals with competitive bidding where the Commission is specifically directed to promote the introduction of "new technologies." 47 USC §309(j)(3)(A), (j)(4)(B) and (j)(4)(C)(iii).

Additionally, §157 of the Act says it is "the policy of the United States to encourage the provision of new technologies and services to the public." It places on those opposing a proposal for the introduction to the public of new technologies "the burden to demonstrate that such proposal is inconsistent with the public interest."

The Association of Public-Safety Communications Officials (APCO), the Federal Law Enforcement Wireless Users Group (FLEWUG) and Motorola have urged allocating "at least a portion" of the 4940-4990 MHz band exclusively to public safety services. Since Global's broadband technology requires 39 MHz (Petition, p.8) within a band of only 50 MHz, any significant diminution of that band would obviously be a matter of major concern to it. With a full 39 MHz bandwidth available, Global's technology would enable it to offer economical, advanced communications services to public safety agencies as well as to others.

B. The 4940-4990 MHz Band Is Not Appropriate For Exclusive Public Safety Usage

Global recognizes the high value of public safety services to the nation. It wholeheartedly supports enhancing those services. It notes that they too have the benefit of a statutory obligation of the Commission. See 47 U.S.C. §151, creating the Commission for the purpose, among others, of "promoting safety of life and property."

Global believes, however, that this proceeding is not the proper occasion, and this frequency band not the proper place, for making additional spectrum available for exclusive use by public safety agencies. It believes the band is more appropriately made available for use by commercial providers of advanced services to which public safety agencies and the public at large would both have access.

C. There Has Been Substantial Progress in Meeting Public Safety's Needs

In September 1996, when the Final Report was issued by the FCC and NTIA Public Safety Wireless Advisory Committee ("PSWAC Report"), there were only 23.2 MHz of spectrum available for the exclusive use of state and local public safety agencies, plus some additional spectrum in major metropolitan areas and for disaster communications. There were 24.5 MHz of other spectrum available for federal public safety use. PSWAC Report at ¶¶1.27-1.31.

In August 1997, Congress mandated in the Balanced Budget Act ("BBA") that 24 MHz of additional spectrum be reallocated for public safety services. See BBA §3004, amending 47 USC §337(a). When the Commission adopted rules for licensing services in this spectrum the following year, it called the new allocation "the largest ever made for public safety communications." *Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2000*, FCC 98-191, WT Docket No. 96-86, 14 FCC Rcd 152 at ¶15 (1998). The accompanying news release noted that the allocation "doubles the amount of spectrum available nationally for state and local public safety communications." The Notice of Proposed Rulemaking in this proceeding referred to that as a "significant commitment" of spectrum to serve public safety needs. NPR at ¶26.

D. The 4940–4990 MHz Band Would Further Fragment Public Safety Spectrum

The total public safety spectrum, including that recently added pursuant to the BBA, is distributed across eight different bands. The lowest such band is at 25-50 MHz. The highest is at 821-824 and 866-869 MHz. This has resulted in what the PSWAC recognized as the "fragmentation that characterizes the Public Safety spectrum today." PSWAC Report at ¶1.27.

In an address to an industry conference in January 1997, the then Chief of the FCC's Wireless Telecommunications Bureau said: "Make no mistake that we are committed to finding additional spectrum for public safety, but in so doing, we need to do it right. We don't want to exacerbate existing problems resulting from the fragmentation of the spectrum." Michelle C. Farquhar, "Putting the Pieces Together," January 16, 1997.

Such fragmentation has created problems in achieving "interoperability," the ability of public safety services operating on different frequencies to communicate with each other. This has required still other spectrum to be used specifically to address that problem. When the Commission adopted rules for the 24 MHz of spectrum allocated to public safety services pursuant to the BBA, it had to assign 2.6 MHz of that spectrum to 164 interspersed channels for the purpose of promoting

interoperability among public safety services using different frequencies. See FCC 98-191, *supra* p.4 at ¶46 and 47 CFR §90.531.

The PSWAC Report noted that "as the need for interoperability increases, the separation between existing bands and new bands becomes relevant because a single radio may be technically incapable of tuning between widely separated bands." PSWAC Report, ¶4.4.13.

The Commission recited, as its reason for selecting the 764-806 MHz band from the frequency range in which Congress had mandated that 24 MHz of additional spectrum be allocated for public safety, that it was "subjacent to existing public safety operations in the 806-824 MHz band" and therefore "holds the best potential for expansion of and interoperability with existing systems." It said the "close proximity to existing spectrum used for public safety could also reduce the difficulty and cost of designing equipment." *Reallocation of Television Channels 60-69, the 746-806 MHz Band,* FCC 97-421, ET Docket No. 97-157, 12 FCC Rcd 22953 at ¶8 (1998) (*Public Safety Reallocation Order*).

The 4940-4990 MHz band is not anywhere near a band that is now used for public safety services. In fact, it is more than 4000 MHz removed from the nearest such band. The entire range of all public safety frequencies, as indicated on page 4 *supra*, is but 844 MHz from the lowest frequency to the highest.

E. The 4940-4990 MHz Band Would Not Serve the Greatest Need of Public Safety Agencies

While increases may be expected in the future in the use by public safety agencies of voice, imagery and data, voice is at present their "principal need." See PSWAC Report, ¶2.2.1. "Voice communications remain the primary form of communication for Public Safety agencies." *Id.* at ¶4.1.8. Such public safety communications, while varied, principally involve mobile units rather than point-to-point communication between fixed stations. *Ibid.* Voice is "by far the most important Public Safety application of wireless technology." *Id.* at ¶4.2.4.

The 4940-4990 MHz band is more suited for high speed data transmission between fixed points than for mobile voice communication, which is commonly in the lower frequency bands where present public safety spectrum is already located. Encryption makes it possible for public safety agencies to use commercial services for data transmission and reception, as well as their own dedicated frequencies, even where security is required.

"It is incumbent upon Public Safety agencies to establish needs," says the PSWAC Report, "and utilize those commercial services which fill those needs." Report at ¶2.3. Global would like to participate in filling the needs of public safety agencies, as well as others, for high speed data reception.

F. The PSWAC Report Made No Finding on the Suitability of 4940-4990 for Public Safety

Adding frequencies far-removed from existing frequencies dedicated to public safety services carries a heavy burden of justification. Such far-removed frequencies would carry none of the potential for expansion and interoperability with existing systems cited by the Commission in its *Public Safety Reallocation Order*, would offer none of the potential for reduction in the difficulty and cost of designing equipment also cited by the Commission, and would not meet the principal need of public safety in its most frequent use, voice communication. APCO, FLEWUG and Motorola purport to find justification in the PSWAC Report.

That report did not, however, reflect a study of the 4940-4990 MHz band, nor did it make any recommendation related to that band. That was because the report was issued while the band was still reserved for federal governmental use. It was over two years before the release by the Department of Commerce of the 4940-4990 band for private use.

The report did recommend that the band for which the Department of Commerce substituted 4940-4990, i.e., the 4635-4685 MHz band, be allocated for public safety systems. See PSWAC Report at ¶2.2.2.5. Since the two bands are in the same general frequency range, one can speculate that the recommendation would probably be the same. But it is still speculation, and undocumented in this record.

G. The PSWAC Recommendation Was Tempered Even as to the 4635-4685 Band

The report of the PSWAC's Spectrum Requirements Subcommittee, on which the recommendation of Committee Report was based, was less positive than the Committee Report about the use of 4635-4685 MHz for public safety services.

In making its recommendation, the Subcommittee said that since there were "many competing interests for spectrum" it was presenting "many options" for meeting public safety spectrum needs. See PSWAC Report at ¶4.4.15. It presented, in table form, "a range of *potential* new spectrum bands that could *potentially* be allocated for Public Safety use between now and 2010 (emphasis added)." The 4635-4685 MHz band was one of thirteen frequency bands listed in the table. PSWAC Report at ¶4.4.12 and Table 4-4-2.

H. The PSWAC Report Was Measured in Its Long Term Predictions

The 4635-4685 MHz band, though mentioned, was subject to the inherent difficulties of predicting spectrum requirements in the long term. The PSWAC Report recognized this.

APCO and FLEWUG both say the report recommended that 97.5 MHz of spectrum be made available for public safety services in addition to the spectrum

available for such services when the report was issued in September 1996. APCO Comments at pp.3-4, FLEWUG Comments at p.3. Most of that 97.5 MHz was for spectrum to be made available "[o]ver the next 15 years." The recommendation was for "as much as" an additional 70 MHz over the last decade of that time period. See page 3 of of the PSWAC Report.

The language qualifying this long range forecast acknowledged what can hardly be denied, that in a field affected by technological advances, the further out predictions are made the less definitive they can be. As the PSWAC's Technology Subcommittee put it in its report: "In the year 2010, a great many of our requirements will be served by some technology which has not yet even emerged from the research labs." PSWAC Report at ¶4.2.5. Requirements for the years 2001-2010, which is the period to which the recommendation of up to 70 additional MHz applied, will become clearer as we get into that decade and observe more clearly the effects of the interplay between improvements in technology allowing more efficient use of spectrum and additional technological capabilities that require more spectrum. See the discussion beginning at ¶4.2.39 of the PSWAC Report.

I. The Commission Has Generally Followed PSWAC Recommendations

The PSWAC was an "advisory" committee. Its recommendations are entitled to deference, but need not be followed by the Commission to the letter as is the case

with Congressional directives. Insofar as this Commission may be perceived to have deviated from PSWAC recommendations, it has clearly accorded the recommendations full consideration and proper deference.

The PSWAC Report was issued in September 1996. In August 1997, Congress made a policy determination that was generally in line with the recommendation in the report. It directed that 24 MHz of spectrum in the 746-806 MHz band be reallocated to public safety services. The frequency band selected by Congress was suggested on page 3 of the PSWAC Report: "The present shortages can be addressed by making part of the spectrum presently used for television channels 60-69 available as soon as possible." This Commission then proceeded expeditiously, in rulemaking proceedings during 1997 and 1998, to implement the Congressional determination which was one major recommendation of the PSWAC Report,.

The delays in the availability of some channels in some markets to accommodate station transitions to all-digital operation represented a policy decision by Congress in weighing competing interests. Congress elected not to implement at that time other recommendations in the PSWAC Report, for other frequency bands. The Commission has likewise not fully implemented PSWAC recommendations, though it weighs those recommendations in each new spectrum allocation action it takes.

In November 1999, the Commission released a Policy Statement announcing "Principles for Reallocation of Spectrum To Encourage the Development of Tele-

communications Technologies for the New Millennium," FCC 99-354, 14 FCC Rcd 19868 (1999). It recognized in ¶11 that allowing flexibility in spectrum use may "not be appropriate where market forces would fail to provide for the operation of important services, *such as public safety communications* (emphasis added)."

The Commission was then certainly aware of the PSWAC Report. It also discussed, in ¶22 of its Policy Statement, the substitution of the 4940-4990 band by the Department of Commerce for frequencies as to which recommendations had been made in the PSWAC Report. Yet the Commission then proceeded to state that it was considering making the 4940-4990 band available for flexible use and competitive bidding.

That policy determination, read in light of the recited awareness of public safety needs for special treatment in some instances, indicated quite clearly that the Commission weighed consideration of public safety's needs in this instance against considerations involved in subtracting this particular frequency band from assignment by competitive bidding.

The Commission then progressed from consideration to development of a formal proposal, in the NPR of February 29, 2000, again with full knowledge that its proposal deviated from a long-term recommendation of the PSWAC as to the frequencies for which 4940-4990 were later substituted. That must be regarded as a

considered decision, for now and for this particular frequency band, that the objective of encouraging deployment of advanced telecommunications services outweighs the benefits urged in the PSWAC Report from diverting additional spectrum to the exclusive use of public safety agencies.

J. FLEWUG's "Default" Proposal Is Unfair, and Barred by Statute

Global is not sure it understands the proposal made on pp. 6-7 of FLEWUG's Comments that the Commission allocate spectrum to public safety agencies "if it does not garner the revenue that budget analysts expect in the auction process."

Typically, by the time an applicant is successful in an auction, it will have incurred the costs of developing and evaluating equipment, assessing market conditions, preparing business plans, raising capital, participating in rulemaking, and preparing and pursuing its application through the auction itself, and it will have met a minimum bid requirement set by the Commission. If FLEWUG's proposal means that, after all that, the applicant could have its authorization withdrawn because the Commission concludes it did not garner the revenues it expected from other bidders in other geographic areas, and perhaps other frequency blocks, it would seem to be unfair in the extreme. It would also seem to violate §309(j)(7) of the Communications Act, which prohibits the Commission from making its competitive bidding public interest determinations "on the expectation of Federal revenues."

II. The Commission Should Reduce the Size of the Geographic Service Areas

In its Comments, Global urged the Commission to prescribe the "same Economic Areas ('EAs') and EA-like areas prescribed in §26.102 of the Rules." Global Comments, p.13. That was because the NPR had suggested as alternatives only larger geographic areas such as Regional Economic Area Groupings ("REAs") and Major Economic Areas ("MEAs"). See NPR ¶42. Though the NPR had also invited commenters to support licensing based on service territories other than those discussed, with arguments as to why other types of service areas are appropriate (see NPR ¶43), Global interpreted the NPR's failure to suggest any areas smaller than EAs as indicating that such areas were not likely to be given serious consideration. Global was also influenced by the fact that EAs were specified as the service areas for licensing in Part 26 of similar flexible services in a nearby frequency band.

Global's decided preference, however, would be for service areas smaller than EAs. It would prefer them for substantially the reasons stated by the Office of Advocacy, U.S. Small Business Administration ("SMA") and the Rural Telecommunications Group ("RTG"). See SBA Comments at pp. 1-4 and RTG Comments at 5-11. Those comments persuasively state the case for why smaller service areas are more appropriate.

The geographic area with which Global is most familiar, EA 167 (Portland-Salem, OR-WA), covers 24 counties in two states. It extends from 55 miles north of Portland, well into Washington State, and south to the California border. The distance from the northwestern corner of the service area to the southeastern corner is greater than 350 miles.

This EA includes one county with a population of 625,000 and a county with a population of 1,800. Six of the counties comprise the Portland MSA (PMSA 6440, Vancouver, OR-WA). Those six counties contain 65% of the population of the EA. That MSA and the one other smaller MSA within EA 167, the two-county PMSA 7080 (Salem, OR), contain a combined 77% of the population of the EA. There are seven counties in the EA, all with large geographic areas, that have populations of less than 20,000 persons. See U.S. Census Bureau 1990 figures and post-1990 population estimates.

It makes no sense for applicants like Global, which offer a service that will at least require some degree of population concentration, to have to bid for full-EA coverage against entities like members of the RTG who wish to render service to sparsely settled rural areas. Furthermore Global, a small business whose interests are aligned with interests of entities represented by the SBA, should not have to bid for wide-area coverage it does not need against corporate conglomerates with much greater resources whose interests are in establishing regional or national networks.

III. The Commission Should Consider Increasing Bidding Credits for Small Businesses

RTG has proposed increasing the bidding credits for small businesses from the 15% proposed in ¶99 of the NPR to 35%; and for very small businesses from the 25% proposed in ¶100 of the NPR to 45%. See RTG Comments at p.16. SBA has made no proposal for increasing small business bidding credits, but has urged the Commission to analyze more sharply the likely impact of the rules proposed in its NPR on small businesses, and discuss alternatives to minimize that impact.

One such alternative would be to increase small business bidding credits. Global's sense is that the bidding credits proposed in the NPR may be inadequate to level the playing field against likely competition in a 4940-4990 MHz auction and assure small businesses like Global the opportunity to provide services in that band. Global urges the Commission in its rulemaking report and order to discuss how effective bidding credits have been, at the levels it proposed, in achieving small business participation in other licensing gained by competitive bidding. If such credits have been ineffective in achieving small business participation at significant levels, then necessary adjustments should be made.

RTG has also proposed bidding credits for rural telephone companies, regardless of whether they qualify as small businesses. Global believes this may be appropriate for rural telephone companies if they are bidding only in RSAs, but not if they

are bidding against small businesses in EAs or in other geographical service areas that are not wholly rural.

IV. The Commission Should Not Remove Spectrum from Availability for Fixed Service

Global, which wishes to offer a fixed advanced communications service, opposes the suggestion by the Fixed Wireless Communications Coalition ("FWCC") that the Commission "zone" a part of the frequencies in the 4940-4990 MHz band for fixed services alone. The suggestion necessarily connotes that a part of the frequency band would be zoned for mobile services alone, and would therefore be unavailable for fixed broadband transmission. Advanced communications services require broadband capability.

FWCC finds justification for its "zoning" suggestion in the possibility that mobile users in adjacent geographic service areas might operate their equipment in violation of their licenses by venturing into territory for which they are not licensed. Any mobile licensee doing so would, of course, be subject to the same sanctions as any other Commission licensee that operates in violation of its license, including possible loss of license.

FWCC also says that no "prior coordination method works for both fixed and mobile users simultaneously." This is simply an argument for in-band interference

control by field strength limits at service area boundaries, instead of by frequency coordination. See Global Comments at pp.17-20, as well as the Comments of Coloma Partners at p.6. Any mobile unit responsible for greater than the permitted field strength signal at its service area boundary, 55 dBu as proposed at p.18 of Global's Comments, would be in violation of the Rules and subject to FCC sanctions.

Conclusion

Global Frontiers, Inc., urges the Commission to make the 4940-4990 MHz frequency band available for use in serving the public interest with new broadband technologies, in accordance with the views expressed in Global's Comments and these Reply Comments.

Respectfully submitted,

Global Frontiers, Inc.

By: S White Rhyne

Sidney White Rhyne
3250 Arcadia Place, N.W.
Washington, D.C. 20015-2330
202/244-6248

Its Attorney

May 17, 2000

CERTIFICATE OF SERVICE

I, Sidney White Rhyne, counsel for Global Frontiers, Inc., hereby certify that I have on this 17th day of May, 2000, caused copies of the foregoing Reply Comments to be sent by first class U.S. mail, postage prepaid, addressed as follows:

Mr. Richard C. Barth
Motorola, Inc., Telecom Strategy
1350 I Street, N.W.
Washington, D.C. 20005

E. Ashton Johnston, Esquire
Piper Marbury Rudnick & Wolfe
1200 Nineteenth Street, N.W.
Washington, D.C. 20036

Paul J. Feldman, Esquire
Fletcher, Heald & Hildreth, PLC
1300 North 17th Street, 11th Fl.
Rosslyn, VA 22209

Mitchell Lazarus, Esquire
Fletcher, Heald & Hildreth, PLC
1300 North 17th Street, 11th Fl.
Rosslyn, VA 22209

Mr. James J. Flyzik
U.S. Department of the Treasury
1500 Penna. Ave., N.W., #2464
Washington, D.C. 20220

Richard S. Myers, Esquire
Myers Keller Communications
1522 K Street, N.W., Suite 1100
Washington, D.C. 20005

Jere W. Glover, Esquire
Office of Advocacy, USSBA
409 Third Street, S.W., Rm. 7800
Washington, D.C. 20415

Gregory W. Whiteaker, Esquire
Bennet & Bennet, PLLC
1000 Vermont Avenue, 10th Fl.
Washington, D.C. 20005

Robert M. Gurss, Esquire
Shook, Hardy & Bacon, LLP
600 14th Street, N.W., Suite 800
Washington, D.C. 20005

Elias Johnson, Esquire
FCC Wireless Telecom Bureau
445 12th Street, S.W., Rm.3B153
Washington, D.C. 20554

Sidney White Rhyne